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METHOD AND APPARATUS FOR IMPROVING THE DYNAMIC  
RANGE OF LASER DETECTED ULTRASONIC IN  
ATTENUATIVE MATERIALS

5 ABSTRACT OF THE DISCLOSURE

10 A system for identifying ultrasonic displacements in a material under test  
utilizing a time-varying output pulse of a first laser beam. The system includes a  
seed laser light source for providing a laser beam, a modulating assembly in the  
path of propagation of the laser beam for time-varying of the laser beam, at least  
one optical isolation assembly placed in the path of propagation of the laser  
15 beam for preventing reflected laser light feedback into the seed laser light  
source, and at least one laser light amplification assembly placed in the path of  
propagation of the laser beam for amplifying the laser beam which passes the  
amplified time-varying output pulse of the laser beam.